

The West Terminal Development will contain an FIS facility that could accommodate international arrivals from any of the gates within the West Terminal area. A secure APM system would link the West Terminal Area to Terminal 1/Terminal 2. Though not proposed as part of the plan, this system could ultimately be extended to serve all concourses of the Airport. A new H&R plant would be required to support the West Terminal Area and is shown located adjacent to the landside terminal component.

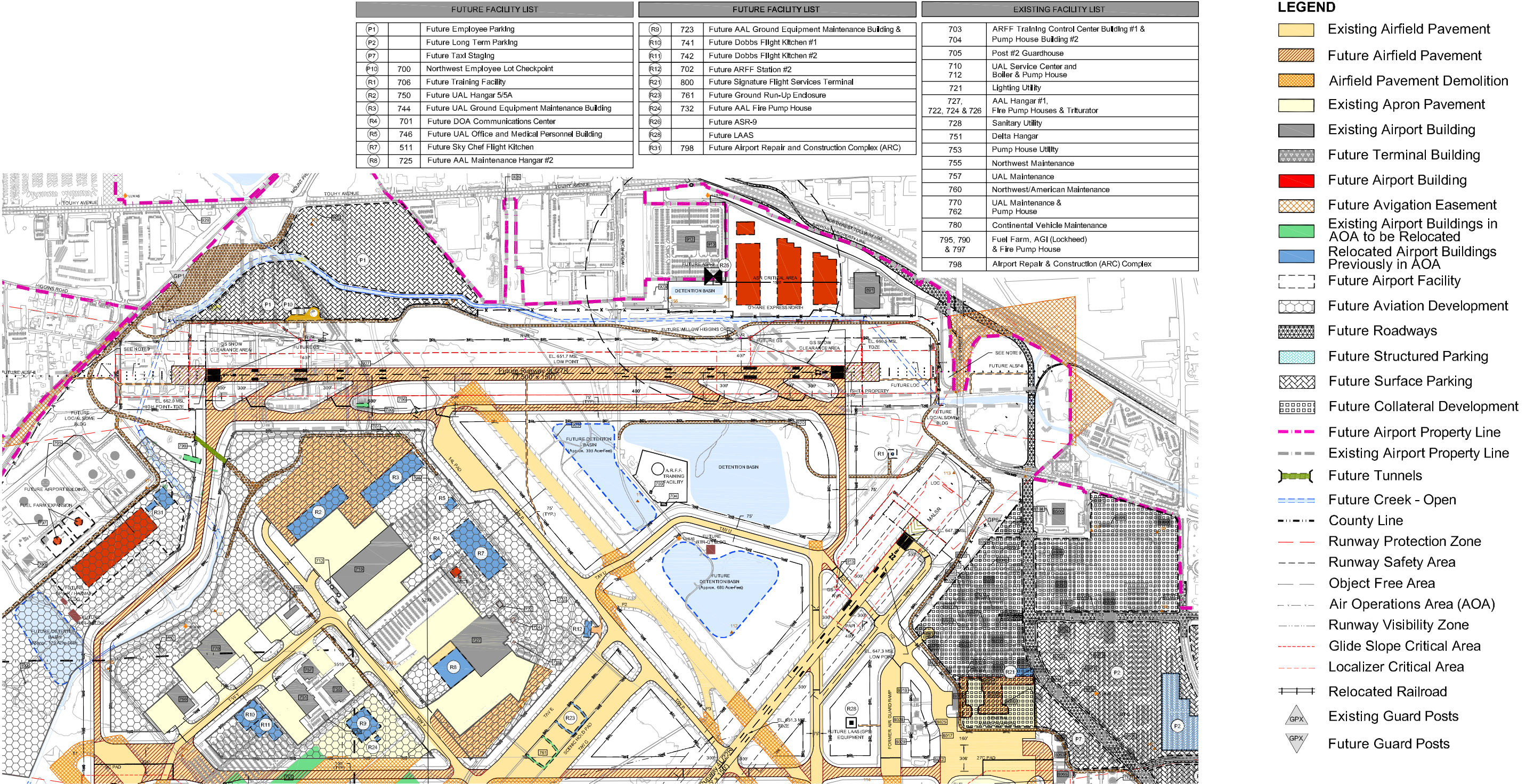
6.3 Support/Ancillary Facilities

Development of Runways 9L-27R, 9C-27C, 10R-28L, and 10C-28C impact support/ancillary facilities located in the Northwest Maintenance and South Cargo Areas, in the North and South Airfields, respectively. This section identifies facilities affected by runway development and discusses the proposed relocation of these facilities.

6.3.1 North Airfield

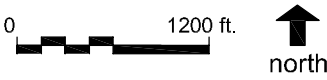
Development of Runways 9L-27R and 9C-27C would require the relocation of several facilities in the Northwest Maintenance Area and at the former Military Site as well as the access roadway to the Northwest Maintenance Area from the north. In-kind relocation of these facilities is proposed, with sites defined in the plan for each specific facility. Ultimately, however, the size and location of many of these facilities will be coordinated with the various tenants to ensure that replacement facilities meet current and anticipated operational needs. As such, the facilities presented in the ALP are representative in nature and may change during the course of the development process in regard to overall site area required, the size and type of facilities, and how the facilities would be configured on a specific site. The ultimate facility plan in this area will be subject to FAA airspace review and will comply with 14 CFR Part 77 regulations and ATCT line-of-sight requirements established in agreement with the FAA. However, the proposed facility relocations will fall within the areas designated for aviation-related development, and these areas can be considered the potential areas of impact. **Exhibit VI-8** presents the plan for the North Airfield. The following lists specific relocations and developments depicted in the plan.

- *Mount Prospect Road Entrance* would be relocated west through the RPZ of Runway 9L-27R.
- *DOA Communications Building* (Building #701) would be relocated south of its existing location. The proposed site is approximately 1.5 acres with a building footprint of approximately 7,900 square feet.
- *Guard Post #1* (Building #700) would be relocated northwest of its existing location along with the Mount Prospect Road relocation.
- *ARFF #2* (Building #702) would be relocated northwest of its existing location. The proposed site is approximately 2.3 acres with a building footprint of approximately 15,300 square feet.
- *Guard Post #2* (Building #705) would be removed as part of the new layout.
- *Explosive Chamber* (Building #706) would be relocated west of its existing location in the northwest corner of the Northwest Maintenance Area. The planned site is approximately 10,000 square feet with a building area of 625 square feet.



Source: Ricondo & Associates, Inc. ; Martinez Corp. Aerial Photography (Nov. 2001);
Department of Aviation Airport Management and Records
Prepared by: Ricondo & Associates, Inc.

Exhibit VI-8



Support/Ancillary Facilities
North Airfield

- *The American Airlines Ground Equipment Maintenance Building (AAL GEM) and Pump House* (Buildings #723 and #732) would be relocated north of their existing locations. The proposed site is approximately 6.7 acres with a building footprint of approximately 82,500 square feet and provides for contiguous development of these facilities similar to their current configuration.
- *American Airlines Hangar #2* (Building #725) would be relocated adjacent to the existing-to-remain American Airlines Hangar #1 (Building #727). An apron area of 409,200 square feet for Hangar #2 will be added to existing apron used by Hangar #1 for a total apron area of 1,530,600 square feet. The AAL GEM and Pump House are nearby, allowing for American Airlines facilities to remain in close proximity.
- *Sanitary Unit* (Building #728), located on a site area of 10,500 square feet, may be sealed and closed or relocated if necessary.
- *Gate Gourmet Flight Kitchens No. 1 & 2* (Buildings #741 and #742) would be relocated north of their existing locations. The proposed site is approximately 4.9 acres with building footprints of approximately 59,100 square feet (Kitchen #1) and 55,600 square feet (Kitchen #2) and provides for contiguous development of these facilities similar to their current configuration.
- *United Airlines Ground Equipment Maintenance* (UAL GEM, Building #744) would be relocated north of its existing location, adjacent to existing Maintenance Building (Building #710). The proposed site is approximately 13.4 acres with a building footprint of approximately 162,300 square feet.
- *UAL Office & Medical* (Building #746) would be relocated northeast of UAL Maintenance Complex. The planned site provides 1.7 acres and a building area of 13,200 square feet.
- *UAL Hangar 5/5A* (Building #750) would be relocated north of its existing location adjacent to UAL Service Center (Building #710) and relocated UAL GEM (Building #744). The proposed site is approximately 25.9 acres and provides 159,300 square feet of building area and 837,400 square feet of apron.
- *The Ground Run-Up Enclosure* (Building #761) would be relocated northeast of its present location along the existing scenic hold pad.
- *The Airport Repair & Construction (ARC) Complex* (Building #798) would be relocated, if necessary, adjacent to its existing location.
- *A New Supplemental ATCT* is planned for a site on the northwest side of the Northwest Maintenance Area. Development of this ATCT is necessitated by new Runway 9L-27R and will be coordinated with the timing for development of that runway. The ultimate location and characteristics of this facility will be subject to ATCT line-of-sight requirements established in coordination with FAA.³
- *Consolidated Northwest Employee Parking Lot*: In addition to the relocated employee parking spaces provided in conjunction with the impacted/relocated buildings in the Northwest Maintenance Area, the plan allows for future development of a consolidated employee parking lot on the northwest side of the Airport. Although timing for the development of this facility has not yet been defined, this consolidated facility provides an

³ *O'Hare Modernization Program North Airport Traffic Control Tower Site Selection Study*, September 12, 2003.

opportunity for the ultimate relocation of all employee parking from within the Northwest Maintenance Area to an area outside of the Airport Operations Area.

- *Other planned facilities*, including the relocated Cargo Building 510, Fuel Farm expansion, and relocated Sky Chefs flight kitchen, remain generally as proposed under the WGP.
- *General Aviation Facility*: Relocation of the recently completed Signature Flight Services Terminal (Building #800) north of its current site will be required to allow for the development of Runway 9C-27C.
- *A service road system* connecting the Northwest Maintenance Area with the West Terminal and subsequently the Terminal Core Area would be developed. This service road replaces a portion of Tank Farm Road, which will be closed to allow development of Runway 9C-27C, and the extension of Runway 9R-27L. The service road would run from the Fuel Farm to the West Terminal parallel to York Road, and east under Runway 14R-32L to Tank Farm Road.
- *Aviation Related Development*: Additional area for aviation-related development is also depicted, both in the Northwest Maintenance Area and on the former military site. This area could accommodate growth in addition to the in-kind replacement or modifications to the proposed development as presented.

Table VI-4 provides a listing of affected/relocated facilities in the North Airfield Area including additional detail on facility characteristics.

6.3.2 South Airfield

Development of Runway 10C-28C will require the relocation of various tenant and Airport facilities in the South Cargo Area. Furthermore, the development of Runway 10R-28L will require the relocation of roadway access to this area. In-kind relocation of most of these facilities is proposed, with general sites defined in the plan for each specific facility. Ultimately, however, the size and location of many of these facilities will be coordinated with the various tenants to ensure that replacement facilities meet current and anticipated operational needs. As such, the facilities presented are representative in nature and may change during the course of the development process. The ultimate facility plan in this area will be subject to FAA airspace review and will comply with 14 CFR Part 77 regulations and ATCT line-of-sight requirements established in agreement with the FAA. However, the proposed facility relocations are within the areas designated for aviation-related development, and this area can be considered the potential area of impact. **Exhibit VI-9** presents plan for the South Airfield. The following lists specific relocations and developments depicted in the plan:

- *Taft Road* would be closed beyond the Post Office and a new entrance to the Southwest Cargo Area will be developed off relocated Irving Park Road east of the Irving Park Road/York Road Intersection. This new access road would pass beneath the connector taxiway between the Runway 10C and Runway 10R ends.
- *Guard Posts #5 and #5A* (Buildings #601 and #605) will be relocated to accommodate the new airfield access from the U.S. Post Office. New Guard Post #12 is proposed to screen traffic entering the airside area at the end of the Main Cargo Road.

Table VI-4

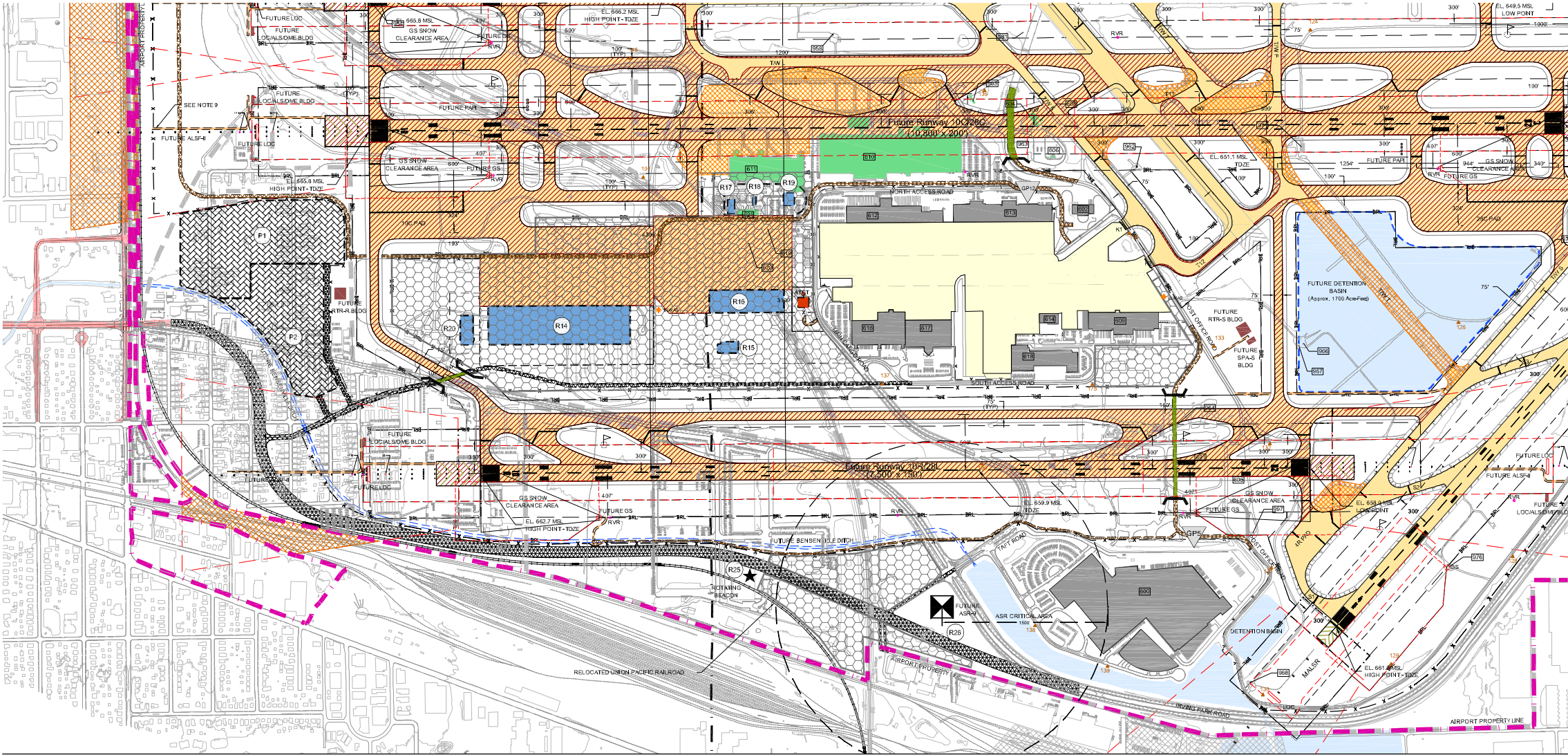
Affected/Relocated North Airfield Support/Ancillary Facilities

Building Number/Name	Property Use	Area (square feet)			Total Site	Total Site Area (acres)
		Building	Apron	Employee/ Visitor Parking		
700 / Guard Post #1	Security/Safety	5,781	-	-	280,610	6.44
701 / DOA Communications	Airlines Support	7,846	35,145	24,237	66,317	1.52
702 / A.R.F.F. #2	Security/Safety	15,261	-	8,014	98,444	2.26
705 / Guard Post #2	Security/Safety	-	-	-	-	-
706 / Explosive Chamber	Security/Safety	625	-	-	10,000	0.23
708 / ComEd Distribution	Utilities	1,333	-	-	13,800	0.32
723, 732 / AAL GEM and Pump House	GSE Maintenance	82,469	166,553	13,874	291,552	6.69
725 / AAL Hangar #2	Aircraft Maintenance	123,696	409,197	161,287	904,249	20.76
728 / Sanitary Utility	Utilities	1,094	-	-	10,507	0.24
741 / Gate Gourmet Flight Kitchen No. 1	Flight Kitchen	59,081	-	-	87,559	2.01
742 / Gate Gourmet Flight Kitchen No. 2	Flight Kitchen	55,630	-	-	123,937	2.85
744 / UAL Ground Equipment Maintenance Building	GSE Maintenance	162,300	225,290	73,310	591,373	13.35
746 / UAL Office & Medical	Airline Support	13,183	-	26,049	72,644	1.67
750 / UAL Hangar 5/5A	Aircraft Maintenance	159,260	837,447	89,265	1,129,810	25.94
761 / Ground Run-up Enclosure	Aircraft Maintenance	1,500	71,195	-	72,695	1.67
Remote Terminal Parking - North	Parking	-	-	1,026,547	1,026,547	32.66
Total		689,059	1,744,827	1,422,583	5,166,080	118.61

Source: 1994 Photogrammetry Base Map (1993 photography/1994 transfer to digital CAD format); 2002 Photogrammetry; and CAD Services.
 Prepared by: Ricondo & Associates, Inc.

FUTURE FACILITY LIST			EXISTING FACILITY LIST		
(P1)		Future Employee Parking		600	U.S. Post Office
(P2)		Future Long Term Parking		601	Post #5 Guardhouse
(R14)	610	Future United Airlines Cargo Building		602	ARFF Station #1
(R15)	621	Future Federal Express Maintenance Building		605	Post #5A Guardhouse
(R16)	611	Future Federal Express Metroplex Building		609	AAL Cargo
(R17)	604	Future South Airfield Lighting Vault & Electrical Utilities		612	Federal Express Freight
(R18)	603	Future Air Cargo Simulation Facility		613	Northwest Cargo
(R19)	606	Future Fueling Station		614	United Parcel Service
(R20)	527	Future Delta Air Freight		616	Lufthansa Cargo
(R25)		Future Rotating Beacon		617	Air France Cargo
(R26)		Future ASR-9		618	KLM Royal Dutch Cargo

- LEGEND**
- Existing Airfield Pavement
 - Future Airfield Pavement
 - Airfield Pavement Demolition
 - Existing Apron Pavement
 - Existing Airport Building
 - Future Airport Building
 - Existing Avigation Easement
 - Future Avigation Easement
 - Existing Airport Buildings in AOA to be Relocated
 - Relocated Airport Buildings Previously in AOA
 - Future Terminal Building
 - Future Airport Facility
 - Future Aviation Development
 - Future Roadways
 - Future Surface Parking
 - Currently Planned Non-Airport Roadway Project
 - Future Airport Property Line
 - Existing Airport Property Line
 - County Line
 - Future Service Road
 - Future NAVAID/ARFF Access Road
 - Runway Protection Zone
 - Runway Safety Area
 - Object Free Area
 - Air Operations Area (AOA)
 - Glide Slope Critical Area
 - Localizer Critical Area
 - Relocated Railroad
 - Future Tunnels
 - Existing Guard Posts
 - Future Guard Posts



Source: Ricondo & Associates, Inc.; Martinez Corp. Aerial Photography (Nov. 2001);
Department of Aviation Airport Management and Records
Prepared by: Ricondo & Associates, Inc.

Exhibit VI-9

Support/Ancillary Facilities
South Airfield

- *The United Airlines Cargo Building* (Building #610) would be relocated west of the existing Southwest Cargo Area, south of Runway 10C-28C. The proposed facility provides 465,200 square feet of building, 575,000 square feet of apron, and 385,700 square feet of truck docks/parking/other areas on 32.7 acres, based on replacement in-kind of existing facilities. Aircraft access to the facility would be provided by the south parallel taxiway to Runway 10C-28C. Airside vehicle access is provided via the new service road along the north edge of the cargo area, and landside access is provided by the relocated cargo area access road.
- *The FedEx Metroplex & Maintenance* (Buildings #611, #619, #620, & #621) will be relocated west of the existing cargo area adjacent to the relocated United Airlines Cargo Facility. Specifically, Building #611 (166,500 square feet), Building #619 (300 square feet), Building #621 (18,900 square feet), associated apron area (821,300 square feet), and combined truck/employee parking/other areas (677,800 square feet) would be relocated on a 38.7-acre site based on a replacement in-kind approach. Aircraft access to the facility would be provided by the south parallel taxiway to Runway 10C-28C. Airside vehicle access is provided via the new service road along the north edge of the cargo area, and landside access is provided by the relocated cargo area access road.
- *Service road modifications*, and the extension of the tunnel that is below Runway 10L-28R to continue under new Runway 10C-28C, are planned to facilitate the movement of vehicles from the reconfigured cargo area to the Terminal Core Area and West Terminal Area.
- *Proposed relocation of the Delta Cargo Building* presented under the WGP is revised to permit development of Runway 10R-28L. Instead of being developed south of the KLM Cargo (Building #618), the facility is proposed to be located west of the relocated United Airlines Cargo Facility.
- *Supplement ATCT*: A site for development of a supplemental ATCT is provided adjacent to the relocated FedEx Metroplex. Development of this ATCT is necessitated by Runway 10R-28L and will be coordinated with the timing for development of that runway. The ultimate location and characteristics of this facility will be subject to ATCT line-of-sight requirements established in coordination with FAA.
- *The relocated Airport Surveillance Radar (ASR) and Rotating Beacon* are proposed to be sited along Irving Park Road near the Taft Road entrance. ASR relocation is necessitated by development of the West Terminal. The ultimate location of these relocated facilities is being coordinated with appropriate FAA representatives.
- *Aviation-Related Development*: Additional area for aviation-related development is also depicted. This area could accommodate facilities growth beyond that specifically identified for in-kind replacement. Development ultimately envisioned in this area would comply with 14 CFR part 77 regulations and TERPS obstacles clearance standards and would be subject to further FAA airspace review.
- *Air Cargo Simulation Facility (Building #603), the Lighting Utility Building (Building #604), the Electrical Utility Building (Building #608), and the Fueling Station (Building #606)*: These buildings are shown to be relocated to an area west of the existing FedEx facility (Building #612) and along the north side of the new service road. In subsequent phases of the program, the appropriate requirements and location for these facilities would be identified based on planning and engineering to be developed within the South Airfield Plan.

Table VI-5 provides a listing of affected/relocated facilities in the South Airfield Area including additional detail on facility characteristics.

6.4 Ground Access

The landside and Airport access improvements are primarily needed to support development on the west side of the Airport, including the new West Terminal Complex. The ALP contains numerous future elements on the east side of the Airport, as well. Many of these east side elements were contained on the previously approved May 2002 Future ALP, some of which have been refined during this planning effort. The following discusses landside and Airport access elements to accommodate growth projected for the planning horizon and summarizes, where appropriate, other landside and Airport access elements contained on the previously approved May 2002 Future ALP as well as identifies whether they have been refined here.

6.4.1 Roadways

Roadway improvements for on- and off-Airport public roadways contained in the October 2003 Future ALP are discussed in the following sections.

6.4.1.1 On-Airport Public Roadways

The on-Airport public roads on the east side of the Airport will operate much as they do today. The following major changes to the east side on-Airport public roads are included on the previously approved May 2002 Future ALP:

- Terminal 6 curbside roadways and new Terminal 5/6 access and egress roadways;
- New ramps and intersections at Bessie Coleman Drive and I-190;
- Upgrade of I-190 west of Bessie Coleman Drive (Airport portion of I-190);
- Westerly relocation and widening of the northern portion of Bessie Coleman Drive to Higgins Road;
- Westerly extension of Zemke Road to relocated Bessie Coleman Drive;
- Fly-over ramps from Bessie Coleman Drive to southbound Mannheim Road;
- Closing of the East Cargo Road and the northern part of Spine Road; and
- Reallocation of Terminal Core roadways/curbside between Terminals 3 and 4 to provide curbside at new Terminal 4.

The alignment of Bessie Coleman Drive in the area of the Mannheim Road fly-over ramp intersection has been refined from that presented in the previously approved May 2002 Future ALP to prevent penetration of Runway 9C-27C Part 77 surfaces.

Table VI-5**Affected/Relocated South Airfield Support/Ancillary Facilities**

Building Number/Name	Property Use	Area (square feet)					Total Site	Total Site Area (acres)
		Building	Apron	Truck Dock	Employee/ Visitor Parking	Truck Parking		
601 / Guard Post #5	Safety/Security	-	-	-	-	-	-	-
603 / Air Cargo Simulation Facility	Cargo	1,900	-	-	-	11,900	13,800	0.3
604 / Lighting Utility	Utilities	6,700	-	-	-	15,200	21,900	0.5
605 / Guard Post #5A	Safety/Security	-	-	-	-	-	-	-
606 / Fueling Utility	Utilities	300	-	-	-	96,900	97,200	2.2
608 / Electrical Utilities	Utilities	-	-	-	-	2,400	2,400	0.1
610 / UAL Cargo	Cargo	465,200	575,000	102,000	114,700	169,000	1,425,900	32.7
611, 619, 620, 621 / FedEx Metroplex & Maintenance	Cargo	<u>185,600</u>	<u>821,300</u>	<u>31,900</u>	<u>142,300</u>	<u>503,600</u>	<u>1,684,700</u>	<u>38.7</u>
Total		659,700	1,396,300	133,900	257,000	799,000	3,245,900	74.5

Source: 1994 Photogrammetry Base Map (1993 photography/1994 transfer to digital CAD format); 2002 Photogrammetry; and CAD Services.

Prepared by: Ricondo & Associates, Inc.

The public roadways to serve the new West Terminal Complex will include a new direct access between the West Terminal's supporting terminal roadway system and the Thorndale Avenue/York Road intersection. The connections between the West Terminal Complex roadways and the Thorndale Avenue/York Road intersection area will include tunnel sections under, and fly-over bridge sections over, the realigned Union Pacific and Canadian Pacific Railroad corridors. Free flow access will be provided between these roadways and the West Terminal Complex roadways. The West Terminal Complex roadway system, depicted in **Exhibit VI-10**, includes the following elements:

- Access and egress roadway connections between the Thorndale Avenue/York Road intersection area and the arrival and departure level curbs;
- Roadway connections to the West Terminal landside support facilities including the parking garage, taxi staging area, bus/limo staging area, rental car area (including a quick-turn around facility (QTA)), the heating and refrigeration facility, terminal service areas, etc.; and
- Recirculation roadway.

6.4.1.2 Off-Airport Public Roadways

Off-Airport public roads on the east side of the Airport will operate much as they do today. The major changes to off-Airport public roads in or adjacent to the eastern portion of the Airport are those changes depicted on the previously approved May 2002 Future ALP, including:

- Upgrade of I-190 from Bessie Coleman Drive to Cumberland Avenue (non-Airport portion);
- Widening of Mannheim Road between Higgins Road and Irving Park Road;
- Extension of Balmoral Avenue to Bessie Coleman Drive;
- New ramps at Mannheim Road and I-190;
- New ramps at I-190 and I-294; and
- Expansion of the I-90/Lee Street Interchange (new ramps to and from the west on I-90 and relocated existing eastbound on-ramp farther east).

Off-Airport roadway improvements on the west side of the Airport will include:

- Grade separation of Irving Park Road under the Canadian Pacific and realigned Union Pacific Railroad corridors and under York Road, as depicted in **Exhibit VI-11**;
- Southerly realignment of Irving Park Road between York Road and the U.S. Postal Service Building to allow for the construction of Runway 10R-28L; and
- Preservation of a corridor for the future West O'Hare Bypass, as discussed in Section 6.7.

The Irving Park Road and York Road grade separation improvements depicted on the plan are consistent with the concept design presented in the Village of Bensenville's CMAQ application to the IDOT, as discussed in Section 5.4.2.2. Elevation changes of structures supporting the grade separations of Irving Park Road, York Road, and the railroad lines have been considered in conjunction with the airfield/airspace operating requirements of Runway 10R.